

April 2002

The New York Rosario Rule Applied to Computerized Documents: The Rigid and Impractical Duplicative Equivalent Doctrine Requires Modification

John T. Bandler

Follow this and additional works at: <http://digitalcommons.pace.edu/plr>

Recommended Citation

John T. Bandler, *The New York Rosario Rule Applied to Computerized Documents: The Rigid and Impractical Duplicative Equivalent Doctrine Requires Modification*, 22 Pace L. Rev. 407 (2002)
Available at: <http://digitalcommons.pace.edu/plr/vol22/iss2/6>

Comment

The New York *Rosario* Rule Applied to Computerized Documents: The Rigid and Impractical Duplicative Equivalent Doctrine Requires Modification

John T. Bandler*

Table of Contents

PART I:	INTRODUCTION	410
PART II:	BACKGROUND AND DISCUSSION	411
	A. <i>Overview and History of New York's</i>	
	<i>Rosario Rule</i>	411
	1. <i>Major Cases and Statutes Regarding the</i>	
	<i>Rosario Rule</i>	411
	2. <i>Summary of Critical Rosario Concepts</i> ..	419
	3. <i>Possible Effects of the Changed</i>	
	<i>Standard of Review for Rosario</i>	
	<i>Violations</i>	421
	a. <i>Effect of Criminal Procedure Law</i>	
	<i>Section 240.75 upon the Scope of</i>	
	<i>Statements that Constitute Rosario</i>	
	<i>Material</i>	421
	b. <i>Potential Effect of Criminal Procedure</i>	
	<i>Law Section 240.75 upon the Analysis</i>	
	<i>of Rosario Violations</i>	422

* The author served as a police officer in the New York State Police from 1994 to 2002, holding the rank of Trooper. He is currently an Assistant District Attorney for the New York County District Attorney's Office. The views expressed herein are solely those of the author and are not intended to reflect views of the New York State Police.

B. <i>Computers and New Technology Create New Issues Regarding what Constitutes Rosario Material</i>	424
1. <i>Introduction to Computer (Electronic) Documents</i>	424
a. <i>Computer Documents Create New Rosario Issues</i>	424
b. <i>The "Recorded" Requirement</i>	425
c. <i>Computer Documents Defined</i>	425
d. <i>Computer Documents and Data Storage</i>	426
e. <i>Types of Computer Data</i>	426
2. <i>Computer Documents and the Duplicative Equivalent Doctrine</i>	427
3. <i>New Technology Brings New Forms of Recorded Statements</i>	432
C. <i>New York Case Law Regarding Computer-Related Witness Statements</i>	433
1. <i>The Current New York Duplicative Equivalent Doctrine is a Significant Barrier to a Rational Consideration of Computer Documents Under Rosario</i>	433
2. <i>New York Case Law Directly Addressing Computer-Related Witness Statements</i> ...	437
D. <i>Case Law from Other Jurisdictions Regarding Computer-Related Witness Statements</i>	441
PART III: PROPOSED STANDARDS FOR COURTS REGARDING COMPUTER-RELATED ROSARIO ISSUES	443
A. <i>Initial Findings</i>	443
1. <i>"Recording" Occurs upon Keystroke</i>	444
2. <i>Computer Documents are Almost Always Edited</i>	445
3. <i>Police Should Only be Required to Manually Preserve Document Versions</i> ..	445
B. <i>The Duplicative Equivalent Doctrine Must be Modified</i>	446

2002]	THE NEW YORK ROSARIO RULE	409
1.	<i>The Court of Appeals Must Modify the Duplicative Equivalent Doctrine for Computer Recorded Statements</i>	446
2.	<i>It Would Be Illogical To Have Separate Standards For Computer Documents and Traditional Documents</i>	447
3.	<i>Proposed Modifications of the Duplicative Equivalent Doctrine for All Rosario Material</i>	447
a.	<i>Create a Work-in-Progress Exemption</i>	447
b.	<i>Allow Consideration of Witness Testimony with Respect to Lost or Destroyed Recorded Statements</i>	448
c.	<i>Continue to Allow Cross-Examination Regarding Changes Made to Documents</i>	448
d.	<i>Continue to Allow Adverse Inference Instructions, but Only upon a Finding of a Rosario Violation</i>	449
C.	<i>Defendants Should Not Be Allowed to Conduct Any Discovery of Police or Prosecution Storage Devices</i>	450
D.	<i>Proposed Rules Regarding Rosario Material</i>	451
1.	<i>Adopt Federal Rule of Evidence 1001 as the Definition of Writing and Recording.</i>	451
2.	<i>Create a New Definition of the Duplicative Equivalent</i>	452
3.	<i>Allow Prosecution Witness Testimony Regarding Lost or Destroyed Rosario Material</i>	453
E.	<i>The Rosario Rule and Future Police Technology</i>	453
PART IV:	CONCLUSION	454

I. Introduction

In *People v. Rosario*,¹ the New York Court of Appeals² set forth what has become known as the “*Rosario* rule.” This rule mandates that in criminal prosecutions, the prosecution must disclose to the defense *all* of a prosecution witness’ prior recorded statements so long as they are material to that witness’ testimony.³ Such recorded statements are commonly referred to as “*Rosario* materials,” and may include the witness’ prior testimony, written statements, notes, and reports.⁴ The purpose of the *Rosario* rule is to ensure that the defense can adequately test the credibility of prosecution witnesses during cross-examination.⁵ The *Rosario* rule was subsequently codified in the New York Criminal Procedure Law (“C.P.L.”) in 1980 and its importance has been consistently emphasized by the New York Court of Appeals.⁶

To date, the New York courts and legislature have largely ignored new technology such as word processors, computer documents, email, voice mail, personal digital assistants (“PDAs”), and in-car cameras that are supplementing or replacing the use of pens, paper, and typewriters, and creating new *Rosario* issues. As a result of such technology, more prior recorded statements exist now than ever before. This new technology requires that courts re-examine what types of statements are classified as a witness’ prior recorded statements. For example, when a document is created and edited on a computer, it is unclear what text editing should be preserved as *Rosario* material for defense inspection.

1. 173 N.E.2d 881 (N.Y. 1961).

2. The New York Court of Appeals is New York State’s highest court.

3. *Rosario*, 173 N.E.2d at 883.

4. See N.Y. CRIM. PROC. LAW § 240.45(1) (McKinney 1993) (discoverable material includes any written or recorded statement, including grand jury testimony); *People v. Washington*, 654 N.E.2d 967, 968-69 (N.Y. 1995) (*Rosario* material includes a police officer’s notes and reports).

5. See *Rosario*, 173 N.E.2d at 883. The *Rosario* holding was modeled after the United States Supreme Court’s decision in *Jencks v. United States*, 353 U.S. 657 (1957). The *Jencks* rule is codified at 18 U.S.C. § 3500 (2001), commonly known as the Jencks Act.

6. See N.Y. CRIM. PROC. LAW § 240.45; see, e.g., *People v. Joseph*, 658 N.E.2d 996 (N.Y. 1995); *People v. Young*, 591 N.E.2d 1163 (N.Y. 1992); *People v. Ranghelle*, 503 N.E.2d 1011 (N.Y. 1986).

Part II of this comment provides a thorough background of the *Rosario* line of cases, a background and discussion regarding how computers and new technology create new issues regarding *Rosario* material, and an examination of cases in New York and other jurisdictions related to *Rosario* material and computer technology. Part III proposes several standards that should be used when dealing with computer-related *Rosario* material, and proposes a significant change in the current duplicative equivalent doctrine, a change that extends to *all Rosario* material. Part III also provides a sample adverse inference instruction to be used when *Rosario* requirements have been violated, and explains why defense requests to inspect the computer media of police and prosecutors must be denied. These proposals reflect an attempt to balance the policy considerations of the *Rosario* rule, the rights of defendants, and the need to have realistic, workable, and efficient standards. Part IV concludes that the current duplicative equivalent doctrine must be modified through either judicial or legislative action.

II. Background and Discussion

A. Overview and History of New York's Rosario Rule

1. Major Cases and Statutes Regarding the Rosario Rule

Rosario case law has focused on two major issues: (1) what constitutes *Rosario* material, and thus what constitutes a *Rosario* violation; and (2) the appropriate penalty for *Rosario* violations.⁷ This section summarizes the history of the *Rosario* rule and the major developments that have followed the rule's creation.

In 1933, the New York Court of Appeals held in *People v. Walsh*⁸ that the trial court may determine which prior statements of a witness were relevant to the defendant's case and therefore had to be turned over to the defense.⁹ Under this

7. New York is unique among jurisdictions for creating a special standard of review and penalty for *Rosario* violations. See *People v. Jones*, 517 N.E.2d 865, 870 (N.Y. 1961) (Bellacosa, J., concurring). Thus, courts in other jurisdictions do not deal with this second issue, and instead apply ordinary standards of appellate review (ordinary harmless error analysis).

8. 186 N.E. 422 (N.Y. 1933), *overruled in part by* *People v. Rosario*, 173 N.E.2d 881 (N.Y. 1961).

9. See *Walsh*, 186 N.E. at 425.

holding, the trial court allowed the defense counsel to see only those statements of a witness that the *court* deemed relevant and contradictory to the witness' testimony, and that were not privileged.¹⁰

In 1957, the United States Supreme Court held in *Jencks v. United States* that, in federal criminal cases, the defense has a right to inspect *any* statement made by a government witness bearing on the subject matter of his or her testimony.¹¹ The Supreme Court's supervisory power over the federal courts provided the authority for this rule, and thus it was not a constitutional rule.¹² The same year, Congress adopted the holding of *Jencks* by enacting 18 U.S.C. § 3500.¹³

In 1961, the New York Court of Appeals in *People v. Rosario* adopted the holding of *Jencks*.¹⁴ The court held that the defense counsel was allowed to examine for itself a witness' prior statement, regardless of whether it varied from the witness' trial testimony, as long as the prior statement related to the subject matter of the witness' testimony and contained nothing that was required to be kept confidential.¹⁵ The court reasoned that the "single-minded counsel for the accused . . . is in a far better position to appraise the value of a witness' pretrial statements for impeachment purposes."¹⁶ Thus, New York State's *Rosario* rule was born. The court maintained that this holding was based upon "policy considerations" and a "right sense of justice," rather than the state or federal constitutions or state law.¹⁷ Four years later, the court of appeals held that the *Rosario* rule extended to pretrial hearings.¹⁸ The C.P.L. was subse-

10. *See id.*

11. *See Jencks v. United States*, 353 U.S. 657, 668-69 (1957).

12. *See id.* at 668 (stating that the basis for holding the Court's "standards for the administration of criminal justice in the federal courts"); *see also* *United States v. Augenblick*, 393 U.S. 348, 356 (1969) ("[O]ur *Jencks* decision and the *Jencks* Act were not cast in constitutional terms.").

13. *See* 18 U.S.C. § 3500 (2001); *see also* FED. R. CRIM. P. 26.2.

14. *See Rosario*, 173 N.E.2d at 883.

15. *See id.*

16. *Id.*

17. *See id.* Other cases have stated specifically that *Rosario* was not constitutionally based. *See, e.g., People v. Jackson*, 585 N.E.2d 795, 799 (N.Y. 1991).

18. *See People v. Malinsky*, 209 N.E.2d 694, 697 (N.Y. 1965).

quently amended to reflect these decisions.¹⁹ At this time, *Rosario* violations were reviewed under ordinary harmless error analysis,²⁰ although this would change eventually.²¹

The New York Court of Appeals started down a slippery path in *People v. Kass*²² when it held that a witness' destruction of notes that had been recopied could constitute a *Rosario* violation.²³ The court reasoned that the defense had not been informed of the destruction of the notes until after the trial, and thus were denied the opportunity to cross-examine and test the credibility of the police witness regarding the circumstances of the destruction.²⁴

In *People v. Consolazio*,²⁵ the court of appeals established a narrow "duplicative equivalent" exception for *Rosario* material.²⁶ The court held that it was not an error for the prosecu-

19. See N.Y. CRIM. PROC. LAW § 240.45 (McKinney 1993) (discovery of witness' statements upon trial); N.Y. CRIM. PROC. LAW § 240.44 (McKinney 1993) (discovery of witness' statements upon pretrial hearing). Section 240.45(1) provides in part:

After the jury has been sworn and before the prosecutor's opening address, or in the case of a single judge trial after commencement and before submission of evidence, the prosecutor shall, subject to a protective order, make available to the defendant: (a) Any written or recorded statement, including any testimony before a grand jury and an examination videotaped pursuant to section 190.32 of this chapter, made by a person whom the prosecutor intends to call as a witness at trial, and which relates to the subject matter of the witness's testimony.

N.Y. CRIM. PROC. LAW § 240.45. Section 240.44 reads in part:

Subject to a protective order, at a pre-trial hearing held in a criminal court at which a witness is called to testify, each party, at the conclusion of the direct examination of each of its witnesses, shall, upon request of the other party, make available to that party to the extent not previously disclosed: 1. Any written or recorded statement, including any testimony before a grand jury, made by such witness other than the defendant which relates to the subject matter of the witness's testimony.

N.Y. CRIM. PROC. LAW § 240.44.

20. See *Rosario*, 173 N.E.2d at 884. For example, even though the appellate court in *Rosario* found that the trial court's ruling was erroneous because the trial court judge did not turn over the witness' statements to the defense, the court found this error was harmless and affirmed the conviction. See *id.*

21. See *People v. Raghelle*, 503 N.E.2d 1011 (N.Y. 1986).

22. 250 N.E.2d 219 (N.Y. 1969).

23. See *id.* at 221-22.

24. *Id.*

25. 354 N.E.2d 801 (N.Y. 1976).

26. See *id.* at 806. I also refer to the duplicative equivalent exception as the "duplicative equivalent doctrine."

tion to fail to disclose prior statements of a witness so long as duplicate equivalents of the statements had been disclosed.²⁷ The court also held that a *Rosario* violation could never be deemed a harmless error,²⁸ setting the stage for what would become known as the "*Ranghelle* rule."²⁹

In *People v. Poole*,³⁰ the court held that a prosecutor's proffer that all *Rosario* material has been disclosed to the defense is generally sufficient to determine that no additional *Rosario* material exists.³¹ However, the court also stated that if the defense can articulate a factual basis that such material does exist, an *in camera* review of the prosecution's file may be warranted.³²

An important corollary of the *Rosario* rule was established in *People v. Kelly*.³³ In *Kelly*, the court held, "A necessary corollary of the duty to disclose evidence is the obligation to preserve the evidence until a request for disclosure is made. Any other rule would facilitate evasion of the disclosure requirements."³⁴ Although this holding related to physical evidence, it has been applied consistently to *Rosario* material.³⁵

In a 1986 decision, the New York Court of Appeals announced what would become known as the "*Ranghelle* rule."³⁶ The court held that when the prosecution fails to produce *Rosario* material completely, such failure constitutes a per se error, requiring reversal and a new trial, immaterial of the prosecu-

27. *Id.*

28. *Id.* at 805 ("We thus reject arguments that consideration of the significance of the content or substance of a witness' prior statements can result in a finding of harmless error.").

29. *See People v. Ranghelle*, 503 N.E.2d 1011 (N.Y. 1989).

30. 397 N.E.2d 697 (N.Y. 1979).

31. *Id.* at 700. Such an exception to the *Rosario* rule has been described by the court of appeals as a "commonsense limit[] to mandatory disclosure." *Ranghelle*, 503 N.E.2d at 1015.

32. *Poole*, 397 N.E.2d at 700.

33. 467 N.E.2d 498 (N.Y. 1984).

34. *Id.* at 500 (citations omitted).

35. *See, e.g., People v. Martinez*, 524 N.E.2d 134, 136 (N.Y. 1988) ("Just as the People have a duty to produce *Rosario* material they also have a correlative obligation to preserve evidence until a request for disclosure is made." (quoting *Kelly*, 467 N.E.2d at 500) (citations omitted)).

36. *See People v. Ranghelle*, 503 N.E.2d 1011 (N.Y. 1981).

tion's good faith efforts.³⁷ The court also addressed the duplicative equivalent doctrine, holding that even "minor" inconsistencies between an officer's memo books and incident reports meant that the statements contained therein could not be considered duplicative equivalents.³⁸

In *People v. Jones*,³⁹ the court reaffirmed the per se reversal rule of *Ranghelle* in circumstances in which the prosecution fails to turn over *Rosario* material.⁴⁰ Although concurring in the decision, Judge Bellacosa strongly disagreed with the per se reversal standard applied by the court, and stated: "The new per se error rule has elevated the consequences of these nonconstitutional *Rosario* violations to a level higher than a host of constitutional errors to which harmless error analysis applies. . . . As the People observe in their brief, no other jurisdiction has a *Ranghelle*-type rule."⁴¹ Judge Bellacosa opined that the *Ranghelle* rule was contrary to legislative direction contained in the C.P.L.⁴² He cautioned that the rule constituted a

37. See *id.* at 1016 ("The People's good faith in attempting to obtain the report is irrelevant . . ."). In a later decision the court affirmed the application of the *Ranghelle* rule to direct appeals, discussed at length the reasons for the *Ranghelle* rule, and again emphasized that the *Rosario* and *Ranghelle* holdings were not based upon the state or federal constitutions. See *Jackson*, 585 N.E.2d at 798-99 ("*Rosario* is not based on the State or Federal Constitution. It is, in essence, a discovery rule, based on a deeply held belief that simple fairness requires the defendant to be supplied with prosecution reports and statements that could conceivably aid in the defense's cross-examination of prosecution witnesses.").

38. See *Ranghelle*, 503 N.E.2d at 1017; see also *id.* at 1015 ("Statements are not the 'duplicative equivalent' of previously produced statements, however, just because they are 'harmonious' or 'consistent' with them." (citations omitted)).

39. 517 N.E.2d 865 (N.Y. 1987).

40. See *id.* at 868. The court stated:

[T]he *Consolazio*, *Perez*, and *Ranghelle* decisions [creating the per se reversal standard] are consistent with prior case law and are part of this court's efforts at careful development of a State standard which, while fair to the prosecution, accords to the defendant a degree of protection commensurate with the importance of *Rosario* rights.

Id. (citation omitted). The court emphasized that *Rosario* violations are unlike other violations in which harmless error analysis is appropriate. See *id.* at 868-69.

41. *Id.* at 870 (Bellacosa, J., concurring) (citation omitted).

42. *Id.* at 871 ("This relatively new absolute rule even blinks the legislative direction contained in CPL 470.05(1) . . . that '[a]n appellate court must determine an appeal without regard to technical errors or defects which do not affect the substantial rights of the parties.'" (quoting N.Y. CRIM. PROC. LAW § 470.05(1) (McKinney 1994))).

"law enforcer's nightmare and a perpetrator's delight," and advocated legislative action to change the *Ranghelle* rule.⁴³

Three categories of *Rosario* violations, and the remedies for each, were enumerated by the court of appeals in *People v. Martinez*.⁴⁴ The first category exists when the prosecution delays in disclosing *Rosario* material.⁴⁵ The court held that in these instances the trial court should determine whether the defense was substantially prejudiced by the delay.⁴⁶ The second category involves the prosecution's complete failure to disclose *Rosario* material even though the prosecution continued to possess the material.⁴⁷ The court held that such a failure constitutes "per se reversible error requiring a new trial preceded by disclosure of the material."⁴⁸ The third category is when *Rosario* evidence has been lost or destroyed and cannot be produced by the prosecution.⁴⁹ The court held that in these circumstances:

43. *See id.* at 872. Judge Bellacosa stated:

The new per se error rule unavoidably plants an uncertainty into every tried criminal case. It is a law enforcer's nightmare and a perpetrator's delight. Insofar as the rule is not constitutionally rooted, I believe it would be useful for the Legislature to consider a specification in CPL 470.05 and article 240, especially CPL 240.20 and 240.45, overcoming the per se-ness of this exalted court-made rule.

Jones, 517 N.E.2d at 871-72. Judge Bellacosa has been consistent and outspoken in his criticism of the *Ranghelle* rule. *See, e.g.*, *People v. Joseph*, 658 N.E.2d 996, 1000-05 (N.Y. 1995) (Bellacosa, J., dissenting); *People v. Banch*, 608 N.E.2d 1069, 1078-79 (N.Y. 1992) (Bellacosa, J., concurring) (quoting his concurrence in *Jones* and advocating legislative reform "as an antidote to the spreading threat of the per se virus"). Judge Levine also criticized the per se reversal rule by joining Judge Bellacosa's dissent in *Joseph*. *See Joseph*, 658 N.E.2d at 1005 ("Disregard of the trial evidence is the hallmark of this Court's *Rosario* per se reversal jurisprudence." (citations omitted)). Judge Bellacosa's advice was eventually heeded when C.P.L. § 240.75 was enacted. *See* N.Y. CRIM. PROC. LAW § 240.75 (McKinney Supp. 2002) (effective Feb. 1, 2001).

44. 524 N.E.2d 134, 136 (N.Y. 1988).

45. *Id.*

46. *See id.*

47. *Id.*

48. *Id.* (citations omitted). This second category is, of course, the "*Ranghelle* rule." *See supra* notes 36-38 and accompanying text.

49. *Martinez*, 524 N.E.2d at 136. This category of destroyed *Rosario* material is very important to this comment because computer editing raises the issue of whether *Rosario* material is lost or destroyed. *See infra* Part II.B. In another decision, the court held that loss or destruction of *Rosario* material does not automatically require dismissal of the indictment because ordering a new trial will not restore the lost material. *See People v. Haupt*, 524 N.E.2d 129, 130 (N.Y. 1988). Subsequent cases made clear that the court will often grant a new trial for loss or

If the People fail to exercise care to preserve it and defendant is prejudiced by their mistake, the court must impose an appropriate sanction. The determination of what is appropriate is committed to the trial court's sound discretion, and while the degree of prosecutorial fault may be considered, the court's attention should focus primarily on the overriding need to eliminate prejudice to the defendant.⁵⁰

The following two cases demonstrate the extreme narrowness of the court of appeals' duplicative equivalent doctrine. In *People v. Young*,⁵¹ the court held:

Two documents cannot be "duplicative equivalents" if there are variations or inconsistencies between them. Further, "[s]tatements are not the 'duplicative equivalent' of previously produced statements . . . just because they are 'harmonious' or 'consistent' with them." Indeed, a statement that is consistent with other disclosed material but omits details or facts cannot be considered the "duplicative equivalent" of the disclosed material, since omissions often furnish important subjects for cross-examination.⁵²

The *Young* court also stated: "Indeed, this [c]ourt has already explicitly rejected the suggestion that reversal should not be required where the withheld *Rosario* information was 'of only "de minimis" or "minimal" value.'"⁵³ In *People v. Joseph*,⁵⁴ the court held:

destruction of *Rosario* material if the defense was not aware that material had been lost or destroyed. See *Martinez*, 524 N.E.2d at 136. The defense is often deemed to be prejudiced if they were not able to cross-examine the witness regarding the loss or destruction, and often an adverse inference instruction is deemed warranted. See, e.g., *Banch*, 608 N.E.2d at 1072; *Martinez*, 524 N.E.2d at 136.

50. *Martinez*, 524 N.E.2d at 136. In such situations, an adverse inference instruction will generally be required. For example, in *Banch*, the court stated: "Depending upon the degree of prosecutorial fault and the resulting prejudice to the defendant, the court *must* then impose an appropriate sanction – preclusion of the witness' testimony or an adverse inference charge, for example." 608 N.E.2d at 1072 (citations omitted) (emphasis added). The *Banch* court also stated, "where the People have failed to exercise due care in preserving *Rosario* material and the defendant is prejudiced by the loss or destruction, it is an abuse of discretion for the court to impose no sanction." *Id.* at 1073 (citation omitted). Arguably, if there was no prejudice at all to the defendant, then no adverse inference charge should be required; however, the court of appeals always seems to find some form of prejudice to the defendant.

51. 591 N.E.2d 1163 (N.Y. 1992).

52. *Id.* at 1166 (citations omitted).

53. *Id.* at 1167 (citations omitted).

We stated in *People v. Ranghelle* for example, that “[s]tatements are not the ‘duplicative equivalent’ of previously produced statements . . . just because they are ‘harmonious’ or ‘consistent’ with them.” A statement cannot be a “duplicative equivalent” if it contains even minor differences resulting from errors in transcription. . . .

. . . .
 . . . [A] document that has been lost or destroyed and is therefore no longer available for judicial inspection cannot be deemed the “duplicative equivalent” of *Rosario* material that has previously been disclosed. . . .

Contrary to the People’s contention, a police officer’s testimony regarding the contents of a lost or destroyed police document is not an acceptable substitute for the document itself, nor is it a sufficient basis from which the court could infer the requisite duplicative equivalence. Even where a document has purportedly been transcribed verbatim, inadvertent errors, omissions and deletions can occur, giving rise to precisely the kind of discrepancies that are most useful in cross-examination. Since the transcriber is likely to be unaware of these errors, that individual’s testimony cannot provide the necessary assurance that the two documents were alike in all respects.⁵⁵

Because the court of appeals has explicitly stated that *Rosario* and *Ranghelle* were not based on the state or federal constitutions,⁵⁶ the state legislature had the authority to modify or reject the *Ranghelle* rule. The legislature did so in June of 2000 when it enacted the Sexual Assault Reform Act.⁵⁷ A portion of this Act creates section 240.75 of the C.P.L., which rejects the

54. 658 N.E.2d 996 (N.Y. 1995).

55. *Id.* at 998 (citations omitted). I believe this is another per se rule by the court—a per se rule that the officer’s testimony in these circumstances is inherently unreliable and thus cannot even be considered by the fact-finder. See *infra* Part II.C.1.

56. See *Jackson*, 585 N.E.2d at 799.

57. See N.Y. CRIM. PROC. LAW § 240.75. In a press release, the Governor’s office stated:

The bill overturns the Ranghelle Rule to prevent fairly obtained convictions for serious crimes including murder, rape and robbery from being automatically reversed on mere technicalities without any showing of prejudice. This historic reform, which has been a top priority for law enforcement officials for more than 15 years, overturns a decision that imposed an inflexible rule, adopted by no other state in the nation, that conferred the windfall of undeserved new trials on countless serious violent criminals, such as murderers and sexual predators.

Ranghelle rule and requires the appellate court to apply a prejudice standard of review with respect to alleged *Rosario* violations. Section 240.75 provides:

The failure of the prosecutor or any agent of the prosecutor to disclose statements that are required to be disclosed under subdivision one of section 240.44 or paragraph (a) of subdivision one of section 240.45 of this article shall not constitute grounds for any court to order a new pre-trial hearing or set aside a conviction, or reverse, modify or vacate a judgment of conviction in the absence of a showing by the defendant that there is a reasonable possibility that the non-disclosure materially contributed to the result of the trial or other proceeding; provided, however, that nothing in this section shall affect or limit any right the defendant may have to a re-opened pre-trial hearing when such statements were disclosed before the close of evidence at trial.⁵⁸

On its face, section 240.75 affects only the second category of violations outlined in *Martinez*, which is the per se reversal standard that was applied when the prosecution totally failed to produce *Rosario* material within its possession.⁵⁹ However, the new law will do more than simply replace a per se reversal standard with a prejudice standard; it will change the scope and analysis of *Rosario* violations.⁶⁰

2. Summary of Critical Rosario Concepts

Three *Rosario* concepts are critical to this comment. First, the narrow and rigid duplicative equivalent doctrine is more properly titled the “identical document doctrine.”⁶¹ Second, although there is a clear duty for the prosecution to preserve *Rosario* material once it is created,⁶² there is no such recognized

Press Release, Governor George E. Pataki, Governor Pataki Signs Landmark Sexual Assault Reform Act (October 19, 2000), http://www.state.ny.us/governor/press/year00/oct19_4_00.htm (on file with author); see also *New Law Increases Sentence for Assault*, N.Y. L.J., Oct. 20, 2000, at 4.

58. N.Y. CRIM. PROC. LAW § 240.75.

59. See *Martinez*, 524 N.E.2d at 136.

60. See *infra* Part II.A.3.

61. The rigid language of *Joseph* is sufficient to reach this conclusion, which was also reached by the First Department. See *People v. Dowling*, 698 N.Y.S.2d 11, 13 (N.Y. App. Div. 1999) (“[T]wo items are duplicative equivalents only if they are identical in every detail; it is not enough to show that they are harmonious or consistent with one another.”) (citing *Joseph*, 658 N.E.2d at 998).

62. See *Martinez*, 524 N.E.2d at 136; see also *Kelly*, 467 N.E.2d at 500.

duty to create *Rosario* material.⁶³ For example, even if an officer is required by his department policy to prepare and submit a report, at least one appellate court has held that there is no *Rosario* violation when the officer never creates the report.⁶⁴ Third, if a statement is never written or recorded, it cannot constitute *Rosario* material.⁶⁵

These *Rosario* concepts are becoming increasingly critical as new technology creates more and more methods of recording statements.⁶⁶ Specifically, computer documents present an issue as to when recording takes place.⁶⁷ For example, it is still undetermined whether statements would be deemed "recorded" upon keystroke, upon saving, or upon printing.

63. See *People v. Steinberg*, 573 N.Y.S.2d 965 (N.Y. App. Div. 1991), *aff'd*, 595 N.E.2d 845 (N.Y. 1992).

The obligation [to provide *Rosario* material to the defense] is limited to 'written or recorded' statements. Oral statements are not included and since, here, there were no written or recorded statements to be disclosed, the prosecutor did not violate his *Rosario* obligation. . . . There is no requirement that a prosecutor record in any fashion his interviews with a witness.

Id. at 981; see also *People v. Littles*, 595 N.Y.S.2d 463, 463-64 (N.Y. App. Div. 1993) ("Because we are satisfied that the material was never generated, there was in fact no *Rosario* violation . . .").

64. *Littles*, 595 N.Y.S.2d at 463-64 ("[T]he People have no affirmative duty to create such [*Rosario*] material. Because we are satisfied that the material was never generated, there was in fact no *Rosario* violation, and no sanction at trial was therefore required.").

65. See N.Y. CRIM. PROC. LAW §§ 240.44 -45; see also *People v. Barnes*, 607 N.Y.S.2d 92, 93 (N.Y. App. Div. 1994) (holding that an unrecorded conversation between witness and Assistant District Attorney was not *Rosario* material); *Littles*, 595 N.Y.S.2d at 463-64; *Steinberg*, 573 N.Y.S.2d at 981. Note that sections 240.45 and 240.44 use the language "written or recorded." This may be a redundant legalism, or it may be based upon a belief that *Rosario* material could be either written (handwritten, typewritten, etc.) or recorded (onto an audio- or videotape, etc.). I will use the term "recorded" to encompass anything written or recorded and, thus, anything that could be considered *Rosario* material. For example, something handwritten or typewritten is "recorded" onto paper. This convention is consistent with Federal Rule of Evidence 1001(1), which provides one definition for "writings and recordings," rather than distinguishing between the two terms. See FED. R. EVID. 1001(1).

66. See *infra* Part II.B.

67. See *infra* Part II.B. and III.A.

3. *Possible Effects of the Changed Standard of Review for Rosario Violations*

Under the *Ranghelle* rule, any ambiguity regarding whether a statement was *Rosario* material constituted a basis for automatic reversal if the statement was later deemed to be *Rosario* material and had not been disclosed to the defense.⁶⁸ Section 240.75 of the C.P.L. clearly changes the *Ranghelle* rule. It seems that the court of appeals is bound to follow section 240.75,⁶⁹ which essentially requires the court to apply a prejudice standard of review for all *Rosario* violations.⁷⁰ The court could limit the practical effect of the new legislation by finding prejudice to the defendant for almost all violations, or by expanding the usual standard of prejudice when dealing with *Rosario* violations.⁷¹ However, to continue to hold that a *Rosario* violation is per se prejudicial would be contrary to the plain meaning and intent of section 240.75.⁷²

a. *Effect of Criminal Procedure Law Section 240.75 upon the Scope of Statements that Constitute Rosario Material*

A discussion of the types of recorded statements that constitute *Rosario* material is beyond the scope of this comment. However, it is worth noting that, under section 240.75, the

68. See *Ranghelle*, 503 N.E.2d at 1016.

69. There is no apparent basis for the Court of Appeals to void the new law because the court has previously specifically stated that its *Rosario* line of cases is not constitutionally based. See *Jackson*, 585 N.E.2d at 799.

70. Under section 240.75, the standard of review for *Rosario* violations is whether non-disclosure "materially contributed to the result" of the trial. N.Y. CRIM. PROC. LAW § 240.75.

71. For instance, the court has already held that *Rosario* violations are per se prejudicial. See *Consolazio*, 354 N.E.2d at 805.

72. However, it is worth noting that the *Ranghelle* rule was already arguably contrary to the plain meaning and intent of the law prior to the enactment of section 240.75. See N.Y. CRIM. PROC. LAW § 470.05(1) (appellate court cannot consider technical errors or defects that do not affect substantial rights); *Jackson*, 585 N.E.2d at 799 (*Rosario* line of cases, including the per se reversal rule, is not constitutionally based); *Jones*, 517 N.E.2d at 871 (Bellacosa, J., concurring) (*Ranghelle* rule contradicts section 470.05(1) of the C.P.L.). The court must follow the statute unless it determines that the statute is unconstitutional. Since the court specifically stated that the *Ranghelle* per se reversal rule was not based upon the state or federal constitutions, it is difficult to ascertain the court's authority to disregard section 470.05(1) as applied to *Rosario* issues.

scope of *Rosario* material could be expanded by the courts. This expansion could occur if courts use a two-step analysis: first determining whether a *Rosario* violation occurred, and then determining whether the defendant was prejudiced.⁷³

Consider a case in which it is clear that the defendant committed the crime of which he was convicted, and there was a *Rosario* violation at trial. The judge has concerns about: (1) allowing a guilty person to go free; (2) the rights of future defendants; and (3) police and prosecutorial actions and practices. Under the old *per se* reversal rule, the judge would be more likely to find that the undisclosed material *did not* constitute *Rosario* material (and thus there was no trial error) in order to affirm the conviction.⁷⁴ Under the new prejudice standard, the judge may be more likely to find that undisclosed material *did* constitute *Rosario* material (and thus there was a trial error), yet still affirm the conviction on the grounds that the *Rosario* violation was harmless. By making such a determination, the judge could affirm the present conviction and keep the guilty defendant in jail, but also broaden the scope of discoverable material for future defendants.

b. *Potential Effect of Criminal Procedure Law
Section 240.75 upon the Analysis of Rosario
Violations*

Under the new standard, it is possible that the actual scope of *Rosario* material may become more ambiguous, and the consideration of whether the defendant was prejudiced will become more important. Under section 240.75, the appellate court might assume for the sake of argument, but not actually decide, that a *Rosario* violation occurred. The court could then evaluate the facts of the case and decide that no prejudice resulted to

73. Prior to section 240.75, when an issue was raised on appeal regarding non-disclosure of *Rosario* material, the *per se* reversal rule meant that the appellate court only needed to consider whether the non-disclosed material was or was not *Rosario* material, since the remedy of reversal was automatic. See *Ranghelle*, 503 N.E.2d at 1016. On its face, section 240.75 simply adds another step of analysis: a determination of whether the violation materially contributed to the result. See N.Y. CRIM. PROC. LAW § 240.75.

74. Otherwise, if the judge ruled that the undisclosed material was *Rosario* material, reversal of the conviction would be necessary (unless some exception could be found or created).

the defendant, even if there was a violation, and affirm the conviction. This would give police and prosecutors less guidance for future procedure.

Another potential effect of section 240.75 is that the analysis of whether a statement is *Rosario* material could merge into the analysis of whether “the non-disclosure materially contributed to the result of the trial or other proceeding.”⁷⁵ Overtly or covertly, the judge might consider prejudice when determining whether or not the statement was *Rosario* material.

A final possible effect of section 240.75 is that the analysis of *Rosario* violations could merge with the materiality analysis under *Brady v. Maryland*⁷⁶ and *People v. Vilardi*.⁷⁷ Under *Brady*, “the prosecution must disclose to defendant evidence in its possession that is (1) favorable to the defense and (2) material either to guilt or punishment. The failure to do so violates the constitutional guarantee of due process.”⁷⁸ The *Vilardi* court discussed the materiality standard, stating:

[A] showing of a ‘reasonable possibility’ that the failure to disclose the exculpatory report contributed to the verdict remains the appropriate standard to measure materiality

. . . .

The “reasonable possibility” standard applied by the Appellate Division—essentially a reformulation of the “seldom if ever excusable” rule—is a clear rule that properly encourages compliance with these obligations⁷⁹

Similarly, section 240.75 states that the appellate court should not reverse a conviction based on a *Rosario* violation unless there was a “reasonable possibility that the non-disclosure materially contributed to the result of the trial or other proceeding.”⁸⁰ If section 240.75 and *Vilardi* use similar, if not identical, standards, the question is whether there are any statements that could create an error under *Rosario* and section 240.75 without creating an error under *Vilardi*. If there are no statements that fall within this category, a separate analysis under

75. N.Y. CRIM. PROC. LAW § 240.75.

76. 373 U.S. 83 (1963).

77. 555 N.E.2d 915 (N.Y. 1990).

78. *Id.* at 921 (Simons, J., concurring) (citing *Brady*, 373 U.S. 83 (1963)).

79. *Id.* at 920 (citations omitted).

80. N.Y. CRIM. PROC. LAW § 240.75.

Rosario serves little purpose. For example, in order for a court to reverse a conviction for a *Rosario* violation, it must find there was a "reasonable possibility" that the non-disclosure materially contributed to the conviction. With such a finding, the court has also implicitly found that a *Vilardi* violation occurred. Thus, it seems that *Rosario* violations could be a subgroup of *Vilardi/Brady* violations. The important distinction will be that a prosecutor's disclosure requirement under *Rosario* only arises prior to a hearing or trial, and the disclosure requirements under *Vilardi* and *Brady* arise when exculpatory information becomes available.

B. *Computers and New Technology Create New Issues Regarding What Constitutes Rosario Material*

1. *Introduction to Computer (Electronic) Documents*

a. *Computer Documents Create New Rosario Issues*

Computer documents differ from typewritten or handwritten documents because of the editing that inherently occurs on screen without the document being converted into a printed form. In a typewritten or handwritten document, edits are visible to the reader as cross-outs or white-outs. Otherwise, the author would have to completely rewrite the document and save the older version as *Rosario* material.⁸¹ In a computer document, by contrast, edits are made constantly in the form of back-spaces, spell-checks, deletions, insertions, and cut-and-paste operations. Such undocumented edits could lead to a finding of a *Rosario* violation, which could require a court sanction.⁸²

81. To be precise, according to the court of appeals' decisions, the older version should be saved and turned over to the defense in case the court later decides it *was* or *could have been* *Rosario* material. When a recorded writing is lost or destroyed, the court assumes a *Rosario* violation has occurred because the court must be able to inspect a non-disclosed statement in order to determine whether it was a duplicative equivalent. See *Joseph*, 658 N.E.2d at 998.

82. A catch-22 of the court of appeals' duplicative equivalent doctrine is that the defense attorney could cross-examine the officer and ask whether any edits were made to the document. Once the officer candidly admits that edits were made and not preserved, he or she has admitted a *Rosario* violation. The duplicative equivalent exception is not available, and the judge may have to give an adverse inference instruction to the jury regarding the officer's credibility.

b. *The "Recorded" Requirement*

As discussed in section A of Part II, if a statement is never recorded, it cannot constitute *Rosario* material. Under the view adopted in this comment, typing keystrokes on a computer in and of itself constitutes recording because the keystrokes are being "recorded" through storage in temporary computer memory as they are displayed on the computer screen. The Federal Rules of Evidence appear to be consistent with this view.⁸³ By any standard, a document has been recorded when it is saved onto a disk, or printed onto paper.

c. *Computer Documents Defined*

Computer documents may also be referred to as "electronic documents," emphasizing the nature of computer storage media.⁸⁴ For the purposes of this comment, "computer," "digital," and "electronic" are synonymous terms, and there is no distinction between computer "documents" and "files."⁸⁵ This comment assumes the continuation of paper-based discovery, and therefore a computer document needs to be printed prior to discovery.⁸⁶ This comment focuses on word processing documents, which are documents used to create and edit text. Discussions of database documents, computer programs, and computer evidence issues are beyond the scope of this comment.

83. See *infra* Part III.A.1 and FED. R. EVID. 1001(1).

84. See Shira A. Scheindlin & Jeffrey Rabkin, *Electronic Discovery in Federal Civil Litigation: Is Rule 34 up to the Task?*, 41 B.C. L. REV. 327, 333 (2000) ("By using the modifier 'electronic,' the term incorporates the idea that the 'physical embodiment of information or ideas' must be kept in electronic form—or . . . in the form of binary numbers stored on electronic transistors.").

85. "In the context of EDMS [Electronic Document Management Systems] . . . a document is essentially a file. A file, in this usage, is an electronic, digital container for information. A document may be a word processing file, or it may be a graphic image, or any other discrete, identifiable information unit that can exist within a computer system." Worldox, *The Case for Document Management*, at <http://www.worldox.com/atwork/whydms.html> (last visited Feb. 7, 2002) (on file with the author).

86. Even though police departments are becoming increasingly computerized, most still utilize paper-based record systems. A report becomes official when it is printed onto paper, and submitted for approval and filing. Of course, the mere fact that a computer document is never printed onto paper should not exclude it from the reach of the *Rosario* rule.

d. *Computer Documents and Data Storage*

Computer documents can be stored in dozens of different types of storage media. One type is random access memory ("RAM"), which is erased when the power source is removed.⁸⁷ A second type of media is magnetic storage, consisting of floppy disks,⁸⁸ internal hard disk drives (often known as the "C-drive"), removable hard drives, and magnetic tapes.⁸⁹ Optical storage media are Compact Disc Read Only Memory ("CD-ROM"), CD-Recordable ("CD-R" can be recorded only once), CD ReWriteable ("CD-RW" can be rewritten), and Digital Video Disc ("DVD").⁹⁰ Regardless of the type of storage media involved or the type of document stored, the information in a computer document is ultimately stored in binary form.⁹¹ The computer stores information in bits, a unit of memory, regardless of the type of underlying document. Word processing files, email files, database files, voice mail files, graphics files, and software applications are all ultimately stored in binary form.

e. *Types of Computer Data*

There are four general types of computer data: active data, inactive data, archival (backup) data, and residual data.⁹² These data categories are non-exclusive, and a digital file could

87. See Jeff Tyson, *How Random Access Memory (RAM) Works*, at <http://www.howstuffworks.com/ram.htm> (last visited Feb. 7, 2002) (on file with the author). "Virtual RAM" performs computer functions like normal RAM, but is actually stored temporarily on the hard-drive. See Marshall Brain, *How Virtual Memory Works*, at <http://www.howstuffworks.com/virtual-memory.htm> (last visited Feb. 7, 2002).

88. Floppy disks are encased in a semi-rigid casing, but the storage medium itself is very flexible. They are inserted into what is generally termed the "A-drive."

89. See Gregory S. Johnson, *A Practitioner's Overview of Digital Discovery*, 33 GONZ. L. REV. 347, 351-52 (1997-1998).

90. See *id.*

91. See Scheindlin & Rabkin, *supra* note 84, at 333-34. Binary means a number system with only two digits. For computers, these digits are depicted as either a "0" or "1" and are stored and transmitted in magnetic or electronic form. See *id.*

92. See Johnson, *supra* note 89, at 359-62 (categorizing data types as active, inactive, archival, and residual); see also Joan E. Feldman & Rodger I. Kohn, *The Essentials of Computer Discovery* (1999), reprinted in PRACTISING LAW INSTITUTE, THIRD ANNUAL INTERNET LAW INSTITUTE 51-77 (1999) (categorizing information processed and stored electronically as active data, replicant data, backup data, and residual data).

be categorized as each type of data within a short period.⁹³ A discussion of the various types of computer data is beyond the scope of this comment, but it should be noted that data and documents are often created, saved, and preserved without the knowledge of the user. For example, computer documents and keystrokes are sometimes saved automatically by the computer without the user's knowledge, and a document that the user believes has been erased may be recoverable.⁹⁴ This is an important concept because statements may be "recorded" onto computer hard drives without the user's knowledge, and also because seemingly "lost or destroyed" documents may be recoverable.⁹⁵

2. *Computer Documents and the Duplicative Equivalent Doctrine*

Given the narrowness with which the New York Court of Appeals has fashioned the duplicative equivalent exception, and its holding that the exception does not apply if the material is not presented to the court for inspection,⁹⁶ serious problems can arise with respect to computer documents. Consider an investigator or detective⁹⁷ typing an investigation report in a word processing program. The investigator may work on the report over a period of hours, days, or months. The investigator will surely make numerous changes to the document, and must follow some sort of procedure to comply with the current duplicative equivalent doctrine.

93. See Johnson, *supra* note 89, at 363.

94. See *id.*

95. In cases concerning raw data, database documents, or forensic analysis of a computer to recover deleted files, electronic discovery will often be requested. See Fennell v. First Step Designs, Ltd., 83 F.3d 526, 529-30 (1st Cir. 1996); United States v. Davey, 543 F.2d 996 (2d Cir. 1976); Anti-Monopoly, Inc. v. Hasbro, Inc., No. 94 CIV.2120, 1995 WL 649934, at *1 (S.D.N.Y. Nov. 3, 1995); Nat'l Union Elec. v. Matsushita Elec. Indus. Co., 494 F. Supp. 1257, 1258-59 (E.D. Pa. 1980); People v. Giraldo, 705 N.Y.S.2d 334, 336 (N.Y. App. Div. 2000).

96. See People v. Joseph, 658 N.E.2d 996, 998.

97. Police officers assigned to conduct investigative work involving serious crimes are titled "detectives" or "investigators" depending upon the particular police agency. For consistency, I will refer to such officers as investigators. Investigators generally create long investigation reports using word processors and are often called to testify as prosecution witnesses. Thus, their reports are subject to the *Rosario* rule.

There are several procedures that police departments could potentially implement in order to comply with the current duplicative equivalent doctrine, including manually preserving versions, utilizing computerized (or automated) version preservation such as through version control software, eliminating the creation of different versions, or recording the changes made to each version. However, for the reasons discussed below, none of these methods will satisfy the current duplicative equivalent doctrine.

Manual preservation of versions requires no special software and thus is a feasible method, provided that the duplicative equivalent doctrine is relaxed from its current rigid state. In theory, an existing version should be preserved if future changes and edits would result in a new version that is not a duplicative equivalent of the existing version. The best way for the investigator to preserve the existing version is to perform a "save as" command periodically. Common sense might dictate naming files in the following fashion: Doe Homicide 01-01-01 ver xx.⁹⁸ Here, "xx" corresponds to the version number of the report. Each time the investigator performs a "save as" command, he or she would increase the version number by one. The final version would be printed and submitted for filing by the investigator as the final report. If the case proceeds to a hearing or trial, the investigator could then print any one or all of the versions created so that they could be turned over to the defense as *Rosario* material. Alternatively, the investigator could periodically print copies of the report, rather than saving the versions. This method has the disadvantage of creating a lot of additional paper that would not be needed if the case never proceeded to a hearing or trial.⁹⁹

The primary problem with manual version preservation is that it is unclear at which point the investigator must preserve

98. The filename would also include a filename extension, which would be added by the software, such as ".WPD" or ".DOC."

99. Most criminal investigations do not result in an arrest, and most arrests do not proceed to a hearing or trial. See, e.g., FEDERAL BUREAU OF INVESTIGATION, UNIFORM CRIME REPORTS 205 (2000), http://www.fbi.gov/ucr/cius_00/00crime3.pdf (about 20% of crimes are cleared by arrest, the rest are unsolved); ANN L. PASTORE AND KATHLEEN MAGUIRE, SOURCEBOOK OF CRIMINAL JUSTICE STATISTICS, 457 (28th ed. 2000), available at <http://www.albany.edu/sourcebook/1995/pdf/t542.pdf> (over 90% of felony convictions are obtained through guilty plea rather than trial).

a version, i.e., when do undocumented changes violate the duplicative equivalent doctrine? A strict application of the court of appeals' current duplicative equivalent doctrine would seem to require the investigator to preserve a version of the document prior to each back-space, deletion, spell-check, or cut-and-paste operation.¹⁰⁰ Because mere omissions from one document preclude a finding of duplicative equivalency, the investigator could be required to preserve portions of the document periodically, even if the only changes are the addition of more text at the end of the previous text.¹⁰¹ Thus, the investigator might create and save hundreds of versions by the time the report is finalized.¹⁰² This would be an overly burdensome result for all parties, with reams of nearly identical documents changing hands. Further, the versions preserved by the user are of little additional value than the user's testimony in court regarding any changes made to the document.

The second possible procedure is utilization of some form of automated version preservation. One way this is technically possible is by using the "undo/redo" information that word processing software maintains.¹⁰³ Given our system of paper-based discovery, the varieties of software used, and the ease with which the undo/redo information can be manipulated, this is not a viable method to preserve changes. Another method to automatically preserve versions is to utilize the auto-saving, auto-versioning feature of some computer software.¹⁰⁴ How-

100. See *People v. Dowling*, 698 N.Y.S.2d 11, 13 (N.Y. App. Div. 1999) ("[T]wo items are duplicative equivalents only if they are identical in every detail . . .").

101. The question could turn on whether the additions were changes to a "work-in-progress" or whether the additions were changes to an existing version. See *infra* Part III.B.3.

102. See Christopher Yates, *Eastman, FileNet, Lotus Wrestle Docs Well*, at <http://www.zdnet.com/products/stories/reviews/0,4161,396386,00.html> (March 28, 1999) ("Creating a new version every time a comma is changed could create a management and storage nightmare . . ."). The article also examines how electronic document management software deals with versions, indicating the importance of the user being able to have some control over what should be considered a new version. See *id.*

103. Word processing software allows users to "undo" and "redo" operations such as typing, editing, and formatting changes. Such software varies as to the number of operations that are stored, i.e., the number of operations that can be undone, and whether the information is saved with the document.

104. For example, Word 2000 allows the user to specify that the software create a backup copy of a document each time a "save" operation is performed, and

ever, these features are designed to protect the user's document from being inadvertently damaged, and are not suitable for the preservation of documents for the reasons expressed above.

Document version control software (also termed a document management system) is currently being utilized by the private sector to manage drafts and revisions. Such software is capable of tracking all changes to a file, recording which user made each change, and when each change was made.¹⁰⁵ However, use of this software is not practical for police departments because of the resources it requires to purchase and maintain these systems. Costs of such software packages can be substantial, and also they require an established computer network and constant system administration and maintenance. In essence, such software is advanced computer technology, and most police departments are not capable of incorporating it now or in the foreseeable future.¹⁰⁶

has an "auto recover" feature which saves changes made at user-specified time intervals. It also has a versioning feature that can be used to create a new version every time the document is closed.

105. See LexTechInc., *Document Management Systems – Overview*, at <http://www.lextechinc.com/wired/documentmanagement/default.asp> (last visited Feb. 14, 2002). According to LexTechInc.:

A good NDMS [Network Document Management System] should also make it easy to 'manage' documents on the network. By manage, we mean the ability to perform the following functions: . . . [a]llow any user to track a document's history (who was the last person to use this document?); [a]llow users to track multiple versions of the same document and compare them.

Id.; see also PC Week Labs Staff, *Shoot-Out Scorecard: Document Management Packages*, at <http://www.zdnet.com/eweek/stories/general/0,11011,2230503,00.htm> (last visited Feb. 14, 2002) (defining versioning as "[t]he ability to automatically and/or manually create and track the history of documents"); Qumasoft, *Quma Version Control System: Feature Summary*, at <http://www.qumasoft.com/features.htm> (last visited Oct. 30, 2000) (citing features such as: "Use a global journal file to keep track of all changes to files in your project(s)"; "Keep track of who changed what, and when they changed it"; "Compare files to earlier revisions or compare revisions to other revisions"; and "Create a variety of reports [concerning revisions]"); Worldox, *The Case for Electronic Document Management*, at <http://www.worldox.com/atwork/whydms.html> (last visited Mar 23, 2002) (listing capability of Worldox 96 software to track "document history" which is also known as "audit trails").

106. As an example of the current state of police technology, one of New York State's largest police agencies still utilizes the "blotter" system, which has been in existence since the early 1900s. Under such a system, patrol activity and arrests are handwritten into a bound ledger. It is unrealistic to expect that such a police agency is capable of implementing an effective document management system.

Elimination of the user's ability to create different versions, another potential procedure, is similarly impractical. Specially designed software for a police agency could prohibit investigators from changing a document,¹⁰⁷ and anything typed would become a permanent record that could not be modified. On its face, this software would eliminate the potential problems regarding computer *Rosario* material; however, it is also clear that use of such software would eliminate the benefits of computers and word processors.

Another potential procedure would require the investigator to maintain a separate log of all the changes made to the report. Such a log might list each and every edit, correction, and change made. Such a log may, however, take as long to complete as the document itself. Further, if this log were kept in a computer document, it might be necessary to maintain a second log in order to preserve any changes made to the first log. This is unrealistic and unduly burdensome.¹⁰⁸

An even more impractical solution would be to require the creation of the report to be videotaped. Although this procedure is consistent with the court of appeals' theory that a police officer is not competent to testify regarding any changes made to a document, it is clearly unworkable.

A legal standard for computer *Rosario* material should not require the use of specific software because such a standard would require that all police agencies in New York State conform, purchase, install, and maintain the designated software. There are approximately 440 police agencies in New York;¹⁰⁹ the multitude and diversity of these agencies create numerous roadblocks to the creation of a uniform software standard. For example, many of these agencies have less than thirty sworn personnel, and many have multiple precincts or stations. Additionally, police agencies lack the resources that would enable them to purchase and maintain the most current software and hardware, which is rapidly changing. In sum, a legal standard

107. This system would have to be specifically made for police agencies because no other types of consumers would want such a system.

108. Nearly all procedures designed to protect the rights of defendants are burdensome to police. Here, however, the additional protection of a defendant's rights is negligible, and the burden on police is enormous.

109. See FEDERAL BUREAU OF INVESTIGATION, UNIFORM CRIME REPORTS 299 (2000), http://www.fbi.gov/ucr/Cius_99/99crime/99cius6.pdf.

that either implicitly or explicitly incorporates specific software requirements will most likely fail.

One aspect of computer documents that should be remembered is that, unlike paper documents (which once lost or destroyed, are generally lost or destroyed forever), electronic information may exist on a computer system in various forms indefinitely. Close examination of a computer system through on-site inspection, copying data bit for bit, and subsequent analysis might reveal additional information, and might restore purged or lost documents. Thus, the defense counsel could request some type of computer forensic analysis in order to obtain this electronic information.

3. *New Technology Brings New Forms of Recorded Statements*

The term "recorded statement" now comprises technological forms of statements, such as statements recorded by in-car computers, handheld computers, police in-car cameras and/or audio recording,¹¹⁰ email,¹¹¹ and voice mail,¹¹² that were not foreseen by the creators of the *Rosario* rule.

Personal Digital Assistants ("PDAs")¹¹³ are already used by a few investigators, and could become more prevalent in the fu-

110. Installation and utilization of police in-car cameras are becoming more prevalent. Often these cameras are capable of recording audio as well. Any audio recording of the police officer's statements during an investigation or arrest situation could be *Rosario* material with respect to that officer's testimony. There is an administrative burden placed upon police agencies to store and provide these videotapes, which is magnified if the tapes are deemed discoverable.

111. Email presents the same concerns regarding editing as computer word processing documents.

112. Voice mail messages are stored on a central computer in digital form, rather than the traditional analog audiotape of an answering machine. In theory, it should be relatively simple to archive voice mail messages, such as by saving them onto a floppy disk or into a separate computer directory. Prior to a hearing or trial, the message could be recorded onto a standard audiotape for convenience. In practice, however, the user usually can only access the message through the phone, and has little ability to archive messages for retrieval months later.

113. These devices are also described as Personal Information Managers (PIMs), handheld computers, or palm-sized computers. A popular brand is made by Palm Computing Inc. Palm Computing, Inc.'s original computer was the Palm Pilot and now has a series of Palm computers. See Craig C. Freudenrich, Ph.D., *How Personal Digital Assistants (PDAs) Work*, at <http://www.howstuffworks.com/pda.htm> (last visited Feb. 28, 2002).

ture.¹¹⁴ PDAs are handheld computers that can perform many of the tasks of traditional computers, including creating and editing text, word processing, e-mailing, tracking appointments, and other database operations. PDAs have no hard drive or floppy drive; data is stored in RAM, which is kept powered through a battery that must be periodically recharged or replaced. Data can be exchanged between PDAs and computers through a direct connection or various types of wireless data transfers. Use of PDAs would allow police officers to revise their electronic notes without detection. However, this is not a new or unique problem, as officers have always been theoretically able to simply copy their notes and destroy the original.¹¹⁵

PDAs and PDA text documents should be treated exactly like laptop or desktop computers and computer documents for purposes of *Rosario* analysis. The same issues presented by traditional computers regarding the editing of electronic documents are presented by PDAs. Any distinctions between PDAs and more traditional computers are irrelevant to *Rosario* analysis.¹¹⁶

C. *New York Case Law Regarding Computer-Related Witness Statements*

1. *The Current New York Duplicative Equivalent Doctrine is a Significant Barrier to a Rational Consideration of Computer Documents Under Rosario*

Under *People v. Joseph*, normal (undocumented) computer editing creates a *Rosario* violation and a finding of trial error because the trial court was not able to inspect the document to determine whether the statement it contained was duplicated elsewhere.¹¹⁷ Thus, the mere fact that a document was edited leads to the conclusion that the prior version could not be iden-

114. See Michael West, *Personal Digital Assistants for Investigators*, at <http://webm9291.im1.net/fall00/pda.shtml> (last visited Feb. 28, 2002).

115. Few departments require their investigators or officers to write notes in official, sequentially numbered notebooks. Such a procedure might make some instances of *Rosario* destruction more evident, but imposes an administrative burden.

116. An alleged distinction based upon storage of documents in RAM is addressed *infra* Part III.A.1.

117. See *People v. Joseph*, 658 N.E.2d 996, 998 (N.Y. 1995).

tical to the discovered material. In *Joseph*, the court of appeals further held that a police officer's testimony (sworn, in court, and subject to cross-examination) that the destroyed material was identical to the discovered material is insufficient to prevent a finding of a *Rosario* violation.¹¹⁸ In other words, the court fashioned a rule that a police officer's testimony regarding destroyed *Rosario* material is per se unreliable.¹¹⁹ This holding conflicts somewhat with *People v. Poole*, in which the court held that a prosecutor's proffer (an unsworn statement as an officer of the court) that no other *Rosario* material exists can foreclose further investigation as to whether additional material does in fact exist.¹²⁰ Naturally, the prosecutor's basis for knowledge in making this proffer consists of the unsworn, out-of-court statements made by police officers to the prosecutor.¹²¹ These holdings create an irrational distinction: a prosecutor's in-court proffer regarding the unsworn, out-of-court statements of a police officer is deemed *more* reliable than the sworn, in-court testimony of a police officer.¹²²

The following hypothetical situations consider all combinations concerning disclosure of a witness' prior recorded statements. First, we consider two statements that are *not* duplicative equivalents, and consider what happens when one of the statements is (a) disclosed, (b) not disclosed and lost or destroyed permanently, or (c) not disclosed but preserved for

118. *See id.* at 1000.

119. Just as the *Ranghelle* rule removed the ability of the appellate court to determine if certain *Rosario* violations were harmless, this rule removes the ability of the trial judge to assess the credibility of the officer and determine if duplicative equivalents of the statements existed. *See infra* Part III.B.

120. *People v. Poole*, 397 N.E.2d at 700 (N.Y. 1979).

121. In other words, the prosecutor will ask the police officers (orally or sometimes by letter) for all *Rosario* material. The officers will give the prosecutor documents and state that no other documents exist. With this as a basis for knowledge, the prosecutor will tell the defense and the court that all *Rosario* material has been turned over.

122. It can be argued that this distinction is rational, based upon a shifting of presumptions. The *Poole* criteria rely upon a presumption that the People have complied with *Rosario* requirements, and require that the defense produce evidence that the People have not complied. *See Poole*, 397 N.E.2d at 700. The *Joseph* criteria create an apparent presumption that by destroying *any* material, the police have violated *Rosario* and, since *Rosario* deals with credibility, the police should not be allowed to absolve themselves of their violation through unimpeachable testimony. *Joseph*, 658 N.E.2d at 998.

appellate review. When the statements are not duplicative equivalents, the results make sense. However, when we examine what is supposed to occur with two documents that *are* duplicative equivalents, it becomes apparent that the current duplicative equivalent doctrine makes very little sense.

i. Hypothetical Situation One (Documents are not Duplicative Equivalents)

Assumptions:

- Two documents are created which *are not* duplicative equivalents of one another.
- Document A contains recorded statements (not contained in Document B) that could be used to impeach the credibility of the officer (prosecution witness).

Situation (a):

- Documents A and B are both disclosed.
- This is in keeping with the true spirit of *Rosario*. The defense has access to the statements in Document A, and can use the statements to cross-examine the witness.

Situation (b):

- Document B is disclosed, but Document A is lost or destroyed.
- If the officer testifies that Document B was identical to Document A, the court cannot consider his testimony (which is a proper result, because, given our assumptions, the testimony would be false). The prosecution will be sanctioned¹²³ for the failure to produce Document A (which is the proper result, because the defense was denied impeachment material and was prejudiced).

Situation (c):

- Document B is disclosed, but Document A is not, although it is preserved for appellate review.
- When the *Rosario* issue is raised for appellate review, the court will examine and compare Documents A and B, find that they are not duplicative equivalents, and order

123. The prosecutor will be sanctioned in the form of an adverse inference instruction regarding the witness' credibility, or preclusion of the witness' testimony. See *People v. Banch*, 608 N.E.2d 1069, 1072 (N.Y. 1992); *People v. Martinez*, 524 N.E.2d 134, 136 (N.Y. 1988).

the appropriate remedy (reversal of conviction if defense was prejudiced).¹²⁴

ii. Hypothetical Situation Two (Documents are Duplicative Equivalents)

Assumptions:

- Two documents are created which *are* duplicative equivalents of one another, i.e., assume the two documents are essentially identical.

Situation (a):

- Documents A and B are both disclosed.
- Disclosure is the procedure recommended by the court of appeals for any potential *Rosario* material.
- The problem here is that disclosure of identical documents serves no purpose.¹²⁵

Situation (b):

- Document B is disclosed, but Document A is lost or destroyed.
- If the officer testifies that Document B was identical to Document A, the court is not allowed to consider this testimony.
- The prosecution will be sanctioned for the failure to produce Document A.

Situation (c):

- Document B is disclosed, but Document A is not, although it is preserved for appellate review.
- When the *Rosario* issue is raised for appellate review, the court will examine and compare Documents A and B, find that they are identical, and affirm the conviction.¹²⁶

These hypothetical situations make apparent a catch-22 regarding the court of appeals' duplicative equivalent doctrine. On the one hand, identical (duplicative) documents do not have to be disclosed to the defense. On the other hand, if an officer lost or destroyed an identical document, the document cannot

124. Prior to the enactment of section 240.75 of the C.P.L., reversal was mandatory. See *People v. Ranghelle*, 503 N.E.2d 1011, 1016 (N.Y. 1986).

125. The next logical question is whether disclosure of one identical document is any better or worse than disclosure of fifty identical documents.

126. Preserving identical documents serves no purpose. How many identical copies should the court examine?

be considered to be an identical document by the court because it cannot be inspected. Because this lost identical document cannot be considered a duplicative equivalent document, the court is forced to rule that the defense was prejudiced by its loss or destruction. It is hard to see how any alleged prejudice to the defendant is avoided by saving and disclosing identical documents.

The factual problems surrounding the duplicative equivalent doctrine may not come to light with great frequency, but they are unavoidable with respect to computer documents. There must be some "commonsense limits" upon *Rosario* materials and the rigid duplicative equivalent doctrine,¹²⁷ and thus the duplicative equivalent doctrine should be broadened.

2. *New York Case Law Directly Addressing Computer-Related Witness Statements*

There are few reported cases in New York State that concern both computer documents and *Rosario* issues. In *People v. Giraldo*,¹²⁸ the defense counsel requested at trial that the prosecution produce a computer diskette upon which the prosecution witness had saved a report.¹²⁹ The First Department held:

The [trial] court properly declined to direct the People to produce a computer diskette upon which a People's witness had saved a report, because defendant had been provided with the identical information (and not merely a duplicative equivalent) in printed, and therefore readable, form. The court correctly held that by providing a hard copy printed from the corresponding file, the People had satisfied their obligation pursuant to *People v. Rosario*.¹³⁰

On appeal, the defense contended that disclosure of the diskette was required "so that he could attempt to retrieve any hypothetical prior versions of the report or deleted material,

127. See *Ranghelle*, 503 N.E.2d at 1015 ("Notwithstanding the strong presumption of the discoverability of prior statements of prosecution witnesses under the *Rosario* rule, we have fashioned some commonsense limits to mandatory disclosure.").

128. 705 N.Y.S.2d 334 (N.Y. App. Div. 2000).

129. *Id.* at 336. The analysis is not affected by the fact that the report was created by a federal special agent rather than a state or local law enforcement officer.

130. *Id.* (citation omitted).

possibly through the use of file-recovery software.”¹³¹ The First Department stated that this claim was unpreserved and declined to review it “in the interest of justice” noting, “[w]here we to review this claim, we would reject it. We need not decide under what circumstances, if any, disclosure of computer storage media might be required notwithstanding disclosure of printed documents.”¹³² The First Department also stated, “On the present record, including the witness’ testimony on the subject, we find no basis, other than speculation, to suspect that analysis of the diskette might have revealed prior versions or deleted material.”¹³³

Giraldo implies two points. First, for purposes of *Rosario* with respect to a word processing document, printed material is considered to be *identical* to the computer document, and not just a duplicative equivalent.¹³⁴ Second, the court refused to rule out the possibility that disclosure of law enforcement’s computer storage media could be ordered, hinting that *if* there were some evidence that other versions or drafts *did* exist on the diskette, disclosure of the diskette could be ordered.¹³⁵

The *Giraldo* court avoided addressing whether edits affect the *Rosario* requirements. From the opinion, it cannot be determined if the witness testified that (1) no prior versions of the document were *ever* in existence, and no deletions were *ever* made, or (2) there were no prior versions or deleted material on

131. *Id.* Note that a floppy diskette would have limited use for forensic analysis compared with an entire hard drive. A floppy diskette could have residual data or documents of any type, depending on its use, and a new (blank) floppy diskette with the document copied onto it would have *no* residual data. Because floppy diskettes are of minimal use and can be handed over with minimal intrusion, query whether the holding would have been worded differently had the defense requested to inspect the police department’s hard drives or network drives. Most computer material is stored on hard drives, which cannot be inspected without considerable intrusion.

132. *Id.* (citing *Fennell v. First Step Designs, Ltd.*, 83 F.3d 526 (1st Cir. 1996) and *United States v. Davey*, 543 F.2d 996 (2d Cir. 1976)). *Fennell* and *Davey* are discussed in *infra* Part II.D.

133. *Giraldo*, 705 N.Y.S.2d at 336.

134. *See id.* The C.P.L. has no definition of what constitutes a writing or recording, but the implied holding in *Giraldo* is consistent with the definition of “original” found in Federal Rule of Evidence 1001(3). *See* FED. R. EVID. 1001(3).

135. *See id.* In Part III.C., I argue that consideration of such disclosure is worrisome and unwarranted.

that specific computer diskette.¹³⁶ It is not clear whether this distinction would have made a difference, nor is it clear how the court would have defined a "version." With respect to electronic discovery, the holding is arguably dicta because the court expressly declined to decide the issue. Thus, *Giraldo* is of limited precedential value, even within the First Department.

Several other New York Appellate Division cases have dealt with computer documents, but they do not squarely address the subject of this comment. Specifically, the cases failed to address how changes to a computer document affect the prosecution's *Rosario* requirements. For example, in *People v. Spinks*,¹³⁷ the police officer transcribed handwritten notes verbatim into a computer document, and then destroyed the handwritten notes.¹³⁸ The Third Department affirmed the trial court's failure to impose any sanction for the destruction of the handwritten notes.¹³⁹ Although the facts involved a computer, this did not affect the holding, and the holding should not be valid after *Joseph*.¹⁴⁰ Instead, the issue addressed by the court involved the destruction of the handwritten notes, which is clearly impermissible. In *People v. Moolenaar*,¹⁴¹ the First Department addressed a "computer generated police form" and held that the particular form did not constitute *Rosario* material.¹⁴² In *People v. Grant*,¹⁴³ an officer "generated" a narcotics-related form, and then destroyed the form after the information had been transferred into the computer system.¹⁴⁴ Again, the issue addressed by the court was the destruction of the hand-

136. Although not mentioned or decided in the opinion, the People's appellate brief states that there was no testimony or any other evidence that the special agent altered or revised the document at all. See Brief for Appellee at Point IV.B., *People v. Giraldo*, 705 N.Y.S.2d 334 (N.Y. App. Div. 2000) (on file with author).

137. 613 N.Y.S.2d 288 (N.Y. App. Div. 1994).

138. *Id.* at 289.

139. *Id.*

140. See *People v. Joseph*, 658 N.E.2d 996, 998 (N.Y. 1995) (duplicative equivalent exception is not available if documents are lost or destroyed).

141. 616 N.Y.S.2d 590 (N.Y. App. Div. 1994).

142. *Id.* at 590. "[I]t contained no actual pretrial statements of witnesses but only a digest of certain portions of preexisting recorded witness statements that had been turned over to the defense at trial." *Id.* at 590-91. (citation omitted). It appears that the fact that a computer was used was irrelevant to the court's decision.

143. 688 N.Y.S.2d 130 (App. Div. 1999).

144. *Id.* at 131-32.

written notes, rather than any unique effect resulting from use of a computer, and the First Department upheld the trial court's refusal to sanction the prosecution.¹⁴⁵

The trial court decision, *People v. Cortez*,¹⁴⁶ appears to be unique as a reported criminal case that addresses some of the technical issues created by new technology. *Cortez* concerned the New York City Police Department's ("NYPD") failure to turn over audiotapes of radio transmissions. The court held that the People and NYPD had an obligation to produce the tapes because they were *Rosario* material.¹⁴⁷ The court stated:

The master tapes kept by the Police Department Communications Division are simply a storage medium. The tapes themselves are not *Rosario* material. Audio tape should be treated no differently, for *Rosario* analysis, from any other storage medium, e.g., paper, videotape, or computer disc. If a storage medium contains *Rosario* material, the *Rosario* material must be accurately copied, without editing, in the same medium.¹⁴⁸

The court should not have distinguished between forms of storage media. Assuming that electronic discovery was ordered, the fact that data were stored on a hard drive, or magnetic tape drive, should surely not preclude turning over the documents in a different medium such as a floppy disk. In addition, computer documents are ultimately stored as binary digits, but it would make no sense at all to require discovery of documents in binary language consisting only of "0"s and "1"s.

145. See *id.* at 132. However, the *Joseph* and *Banch* decisions indicated that the trial court *must* impose some sanction for the destruction of *Rosario* material. See *Joseph*, 658 N.E.2d at 999; *Banch*, 608 N.E.2d at 1072. Thus, the ruling in *Grant* was incorrect. Though the appellate division in *Grant* conceded that some *Rosario* material may have been destroyed, it applied a prejudice standard, and found that no sanction was needed. The court indicated that actions by the defense attorney, such as rigorous cross-examination regarding the destruction of *Rosario* material, and referring to the destruction in summation, eliminated any prejudice to the defendant. See *Grant*, 688 N.Y.S.2d 130 at 132.

146. 564 N.Y.S.2d 963 (N.Y. Crim. Ct. 1990).

147. See *id.* at 967-68. The NYPD was doubly obligated to produce these materials because they had been subpoenaed. See *id.* at 966.

148. *Id.*

D. *Case Law from Other Jurisdictions Regarding Computer-Related Witness Statements*

As illustrated by the *Ranghelle* rule and the duplicative equivalent doctrine, New York courts have been consistently harder on police and prosecutors than any other jurisdiction.¹⁴⁹ In jurisdictions more lenient towards the prosecution, computers do not create a discovery issue with respect to prior statements of witnesses. As a result, case law from other states regarding computerized witness statements is sparse and fails to address the topic of this comment.¹⁵⁰

Although federal case law regarding computer-related witness statements primarily deals with civil discovery, or data documents, a brief examination of the case law is nevertheless helpful.¹⁵¹ For example, in *Fennell v. First Step Designs Ltd.*,¹⁵² the First Circuit addressed a civil discovery dispute in which the plaintiff alleged that a particular memo written by the plaintiff had been fraudulently backdated and requested an order allowing personal inspection of the defendant's hard drives in order to determine when exactly the memo was written.¹⁵³ The First Circuit affirmed the trial court's refusal to grant the additional discovery, citing the district court's "broad discretion" to decide such a request and a discovery standard that balanced "substantial risks and costs" of such discovery with the

149. See *People v. Jones*, 517 N.E.2d 865, 870 (N.Y. 1987) (Bellacosa, J., concurring) ("[N]o other jurisdiction has a *Ranghelle*-type rule."); cf. Robert M. Pitler, *Independent State Search and Seizure Constitutionalism: The New State Court of Appeals' Quest for Principled Decision Making*, 62 BROOK. L. REV. 1, 17 (1996). "In all, twenty decisions over the past sixteen years have resulted in greater New York State search and seizure protection than that provided by the Fourth Amendment." *Id.* "All too many of these decisions are unsupported by any of the traditional bases of constitutional interpretation . . . Absent from these state decisions were carefully crafted, reasoned, logical, principle-guided, policy-based and precedent-supported opinions—hallmarks of the judicial process." *Id.* at 17-18.

150. In *Mangione v. State*, 740 So. 2d 444 (Ala. Crim. App. 1998), the police witness took notes by hand and on a laptop computer. The defense objected to the admission of a police witness' computer notes into evidence. The court of criminal appeals held there was no error in admitting the computer notes into evidence because the defense had opened the door by asking about them. *Id.* at 454-55.

151. See, e.g., *Anti-Monopoly, Inc. v. Hasbro, Inc.*, 94CIV.2120, 1995 WL 649934, at *2 (S.D.N.Y. Nov. 3, 1995) ("[T]oday it is black letter law that computerized data is discoverable if relevant."). This pronouncement cannot be applied to criminal discovery. See *infra* Part III.C.

152. 83 F.3d 526 (1st Cir. 1996).

153. See *id.* at 529-30.

evidence of "a particularized likelihood of discovering appropriate information."¹⁵⁴ The *Fennell* court also held that the trial court should consider whether there is evidence of fabrication.¹⁵⁵

Although *Fennell* is mentioned in *People v. Giraldo*, its application to criminal cases should be limited to its emphasis on the risks and costs upon a party when discovery is sought of its computer system. Risks and costs considered should include the irreparable harm caused by the exposure of confidential information, as well as the potential for damage to the computer system.

In another federal case, *United States v. Davey*, the Second Circuit held that the Internal Revenue Service ("IRS") was entitled to discovery of the original (magnetic) computer tapes created by a taxpayer defendant and did not have to accept purported duplicates or paper printouts (hardcopy).¹⁵⁶ The IRS's motivation for seeking the computer tapes was both for convenience¹⁵⁷ and to help ensure there was no fraud involved.¹⁵⁸ *Davey's* "form of production" analysis is relevant to the focus of this comment as far as it dealt with concerns regarding the falsification of computer material, because falsification is an issue of witness credibility that the *Rosario* rule was meant to address. *Davey* is distinguishable from the focus of this comment because it concerns database electronic documents and a law enforcement subpoena served upon a defendant rather than discovery requested by a defendant.

In *United States v. Dioguardi*,¹⁵⁹ the Second Circuit held that the government was required to produce the actual computer program that it used to analyze the defendant's inven-

154. *See id.* at 532-33.

155. *See id.* at 533-34.

156. *United States v. Davey*, 543 F.2d 996, 998 (2d Cir. 1976).

157. *See id.* at 1000. (Production of magnetic tapes would "insure greater accuracy and a substantial saving in auditing time" and the taxpayer should not be allowed to produce requested information in an "inconvenient form.").

158. *Id.* (The IRS "should not be required to rely on the taxpayer's affidavit that a print-out accurately reproduces all information on requested tapes. Such a holding would run contrary to the investigatorial purpose of the audit.").

159. 428 F.2d 1033 (2d Cir. 1970).

tory, rather than simply producing computer printouts.¹⁶⁰ *Dioguardi* dealt with database analysis and input-output computer programs, and thus is distinguishable from circumstances dealing with computer text documents.

III. Proposed Standards for Courts Regarding Computer-Related *Rosario* Issues

A. *Initial Findings*

Courts must confront the *Rosario* issues created by computer technology, and create commonsense standards that are realistic and fair to both the prosecution and the defense. Although courts now have the discretion to find *Rosario* violations harmless, it would be unfair for them to find a *Rosario* violation at every keystroke, only to find that the error was harmless.¹⁶¹ Such an application creates a *Rosario* standard that police cannot meet, and the police would be committing "error" and presumably violating the rights of a defendant, even when taking the utmost practical care to do otherwise. It is also unfair to saddle the prosecution with adverse inference instructions as a matter of course in order to compensate for the routine computer editing done by prosecution witnesses.

Perhaps rigid *Rosario* rules exist as an attempt to ensure that police will not falsify reports or testimony, or to ensure that they will be caught if they do. The assumption inherent in this rationale is that some police officers will tell a modified version of the facts. This assumption conflicts with the purpose of the *Rosario* rules, because an officer who is inclined to testify falsely regarding the primary subject matter of his testimony is also unlikely to testify truthfully regarding the existence or con-

160. See *id.* at 1038 (citing *United States v. Kelly*, 420 F.2d 26 (2d Cir. 1969)). But see *United States v. Alexander*, 789 F.2d 1046, 1049 (4th Cir. 1986) (holding that the Jencks Act does not apply to peer programs and printouts).

161. Such an unfair and unrealistic standard could arguably give some officers the impression that judges expect a certain amount of lying, since a completely truthful account could never pass judicial muster. For example, one appellate court indicated in dicta: "One might come to the conclusion that the *Rosario* doctrine, as it has been extended, acts more to create traps for honest, but unwary police officers and prosecutors, than to serve as remedial protection for defendants." *People v. Hardy*, 577 N.Y.S.2d 810, 811 (N.Y. App. Div. 1991). The court went on to discount this view of the *Rosario* doctrine on the grounds that the problem may be remedied simply with an adverse inference instruction. *Id.* at 812.

tents of potential *Rosario* material.¹⁶² In most cases, the officer is the only one with knowledge as to whether non-disclosed recorded statements exist, and therefore such testimony is often incapable of being impeached.

1. *"Recording" Occurs upon Keystroke*

A writing should be deemed recorded as soon as keystrokes are typed and appear on the computer monitor. Upon keystroke, magnetic/electronic impulses and currents flow between the keyboard, computer, and computer monitor. The information is instantly stored in RAM, which is nearly as permanent a medium as any other type of storage media. Such a definition of recording is supported by Federal Rule of Evidence 1001, which provides that a writing and recording consists of letters, words or numbers set down by "magnetic impulse, mechanical or electronic recording, or other form of data compilation."¹⁶³

There is no sound reason to impose any other standard to determine when or if a statement has been recorded. Any standard that places emphasis upon the acts of printing (onto paper) or saving (onto a hard drive or floppy disk) will fail; a proper standard must recognize that storage in RAM constitutes recording. RAM is as permanent as the power source, whether it is AC current or battery. Power sources today are extremely reliable, virtually indefinite. PDAs store data exclusively and indefinitely in RAM, and material recorded in PDAs should not be exempted from *Rosario* requirements. Failing to recognize RAM-stored material as a recording would allow infinite changes to a document to be made as long as the document is not saved onto a hard drive or printed. This result is not consistent with the policies behind the *Rosario* rule. Finally, a distinction based upon when the document is saved or printed conflicts with the fact that a computer may automatically, and unknowingly to the user, save documents or parts of documents on the hard drive.¹⁶⁴ Thus, such a distinction creates an impos-

162. It is interesting that the witness' testimony can be considered regarding the existence of other *Rosario* material, but such testimony cannot be considered regarding the contents of such material.

163. FED. R. EVID. 1001(1).

164. This may take place through placing data in virtual RAM, by saving data in temporary files, or by making backups.

sible factual issue as to whether the material was ever saved onto a hard drive.

It is reasonable and necessary to conclude that recording occurs at keystroke; a conclusion that will survive through the rapid change of computer technology. From this viewpoint, we can begin to develop a meaningful *Rosario* doctrine.

2. *Computer Documents are Almost Always Edited*

It is necessary to recognize that editing almost always occurs in computer documents. It is unrealistic for a court to expect that documents can be created without any corrections. Thus, a court should not assume bad faith on the part of the prosecution witness, or that a violation of the defendant's rights has occurred, when such edits and corrections have been made. Courts should expect that a diligent investigator would double-check his or her report for errors and inaccuracies, and make any necessary corrections. This is not to suggest that police should have free reign to make undocumented changes, but they must be given some limited discretion.

3. *Police Should Only Be Required To Manually Preserve Document Versions*

Provided that the duplicative equivalent doctrine is modified as proposed in this comment,¹⁶⁵ manual version preservation is the sole practical means whereby recorded statements could be preserved. It is possible to create a workable standard that requires the user to manually save versions at periodic intervals. Such a standard could be flexible enough to work with existing and future technology and software, and it does not require that the judiciary (or legislature) make decisions and guidelines relating to technical software issues or software acquisition. How a "new" or "different" version is defined is important because the distinction affects what versions must be preserved, and the definition should be consistent with a revised duplicative equivalent doctrine.

A significant disadvantage of such a standard is that it expressly grants police the right to decide which changes and edits are important. Such a grant of power seems contrary to the

165. See *infra* Part III.B.

policy of *Rosario*, but considering the amount of discretion and the vast responsibilities that police possess, this is a minor and unavoidable grant of discretion.¹⁶⁶

Standards that require automatic version creation, version control software, and document version elimination all require complex decisions regarding software, hardware, cost-benefit analysis, and system maintenance.¹⁶⁷ It is doubtful that the judiciary would have the authority or expertise to make such software decisions. The legislature might be better suited to create a state-wide police computer reporting system, but this is both unlikely and impractical given that potential *Rosario* violations are a relatively low priority in comparison to the many issues facing police agencies and the administration of justice.

B. *The Duplicative Equivalent Doctrine Must be Modified*

1. *The Court of Appeals Must Modify the Duplicative Equivalent Doctrine For Computer Recorded Statements*

The New York Court of Appeals has an opportunity to reverse its duplicative equivalent doctrine because section 240.75 requires that the *Rosario* rule be revisited. If the court does not make such a modification, it will be necessary for the legislature to modify the doctrine by statute.

As discussed above, the current duplicative equivalent doctrine is too narrow for computer documents, and must be broadened.¹⁶⁸ If the duplicative equivalent doctrine is not broadened for computer documents, there will nearly always be a *Rosario* violation whenever computer documents are involved. Furthermore, development of sound police practice is thwarted if the courts fail to address what constitutes *Rosario* material.¹⁶⁹

In reconsidering the *Rosario* rule in light of section 240.75 of the C.P.L., the court of appeals should not require that all minor changes and edits be preserved for disclosure. It should hold that computer documents are duplicative equivalents of

166. Note that the investigator will still be subject to cross-examination regarding any changes made to the document. See *infra* Part III.B.3.

167. See *supra* Part II.B.

168. See *supra* Part II.C.1.

169. Courts may do this by assuming that there was a violation, but finding no prejudice to the defense. See *supra* Part II.A.3.

each other if they are similar in all respects except for minor changes and edits.¹⁷⁰ Such a broadening of the duplicative equivalent doctrine will undoubtedly solve many of the *Rosario* issues with respect to computer documents.

2. *It Would Be Illogical to Have Separate Standards for Computer Documents and Traditional Documents*

There is no logical reason to distinguish computer documents from traditional documents with respect to the disclosure requirements under *Rosario*. Computer documents merely make an existing problem impossible to ignore. Differing duplicative equivalent standards would create additional complications and confusion, and would create a collateral issue of whether a particular document is a computer document or a traditional document. Such a determination may not always be simple,¹⁷¹ and even if it was simple, an illogical distinction is harmful to the law and administration of justice.

3. *Proposed Modification of the Duplicative Equivalent Doctrine For All Rosario Material*

a. *Create a Work-in-Progress Exemption*

Creation of a “work-in-progress” exemption for all *Rosario* material is a practical idea. Such an exemption would recognize that typographical and other types of errors occur, and that preserving such errors is not necessary under the spirit of *Rosario*. Such an exemption gives an investigator adequate time to prepare, revise, and proofread the report. When the report is considered final by the investigator, or when it is submitted for review, this “work-in-progress” exemption would no longer be applicable.

170. See *infra* Part III.D.2. for a proposed definition for the term “duplicative equivalent.”

171. For example, some word processing typewriters can be set to type immediately upon keystroke, can display a small quantity of text on a screen before typing it, or can allow text to be entered onto the screen, edited, and saved without any printout. Some documents could be partially completed on a computer and partially completed by hand.

b. *Allow Consideration of the Witness' Testimony with Respect to Lost or Destroyed Recorded Statements*

When the court of appeals created the *Ranghelle* rule,¹⁷² it imposed a rigid per se reversal rule upon appellate justices that suggested that they were unable or unqualified to determine whether the defendant had been denied a fair trial because of a *Rosario* violation. The court of appeals in *Joseph* similarly imposed a rigid rule upon trial court judges,¹⁷³ implying that they were unable or unqualified to assess credibility when duplicative equivalency is at issue. The *Ranghelle* rule has been legislatively overturned; the rule espoused in *Joseph* must be overturned as well. Prosecution witnesses should be allowed to testify regarding material that has been lost or destroyed.¹⁷⁴ The trial court judge is qualified to determine whether the witness is credible, and whether the defendant was prejudiced by any loss or destruction of material.¹⁷⁵ If necessary, the trial judge is always free to sanction the prosecution through an adverse inference instruction or preclusion of the witness' testimony, but the trial judge should be allowed to determine whether a *Rosario* violation has occurred.

c. *Continue to Allow Cross-Examination Regarding Changes Made to Documents*

Defense attorneys should be able to cross-examine witnesses regarding document edits. Similarly, the prosecution witness should be allowed to explain any loss or destruction of recorded statements. Finally, the trier-of-fact must perform its legal duty and assess the witness' credibility, taking into consideration the testimony, cross-examination, arguments, and jury instructions.

172. See *People v. Ranghelle*, 503 N.E.2d 1011, 1015-17 (N.Y. 1986).

173. See *People v. Joseph*, 658 N.E.2d 996, 998 (N.Y. 1995).

174. Of course, such testimony would be subject to cross-examination as described *infra* Part III.B.3.

175. The court of appeals should neither perform this credibility assessment, nor remove the trial judge's ability to assess credibility. By precluding testimony on the issue of lost *Rosario* material, the court of appeals essentially holds that such testimony is per se unreliable.

d. *Continue to Allow Adverse Inference Instructions, but only upon a Finding of a Rosario Violation*

No adverse inference instruction should be given unless the prosecution has violated a *Rosario* duty.¹⁷⁶ If the prosecution does violate such a duty *and* the defense is prejudiced, the trial court should impose an appropriate sanction, which usually will take the form of an adverse inference instruction. There is no pattern jury instruction for an adverse inference charge, and the language is within the discretion of the trial court. The following is a proposed adverse inference instruction:

The People have the burden of preserving recorded statements of a prosecution witness (*Rosario* material). You've heard testimony from a police officer in this case that the statement[s] had been lost [destroyed], and thus there was a failure on the part of the People to preserve those statement[s].

You may consider the failure of the People to preserve the statement[s] in determining the weight to be given to the testimony. The failure of the People to preserve the statement[s], permits, but does not require, for you to infer that had the statement[s] been preserved, its contents would not support, or might even contradict, the testimony of the People's witness on that issue.

You may also consider the explanation offered by the People for the failure to preserve the statement[s]. And if the explanation satisfies you, then you may disregard the People's failure to preserve the statement[s].¹⁷⁷

176. As stated above, a broadened duplicative equivalent exception must be adopted for *all* recorded statements. If the duplicative equivalent exception is *not* broadened, then computer documents will almost always contain a *Rosario* violation. See *supra* Part III.B.1.

177. The proposed instruction was adapted from an adverse inference instruction that was given regarding destroyed physical evidence (drugs). See *People v. Gibbs*, 615 N.Y.S.2d 394, 395 (N.Y. App. Div. 1994) (Murphy, J., dissenting), *aff'd*, 650 N.E. 2d 1316 (N.Y. 1995). In *Gibbs*, the majority of the appellate division approved the trial court's adverse inference instruction, but it was the dissent that actually quoted the trial court's instruction. The court of appeals approved of the *Gibbs* instruction with respect to physical evidence. *People v. Gibbs*, 650 N.E.2d 1316 (N.Y. 1995). The general language of the *Gibbs* instruction was approved for *Rosario* violations by the First Department in *People v. McLean*, 619 N.Y.S.2d 554, 555 (N.Y. App. Div. 1994). In *People v. Matarrese*, the Second Department approved but only generally described the trial court's adverse inference instruction. 584 N.Y.S.2d 618, 618 (N.Y. App. Div. 1992) ("The court instructed the jurors that they could infer that the witness' original statement, which was lost by the police . . . would contradict both her trial testimony, and a later statement obtained from

C. *Defendants Should Not be Allowed to Conduct Any Discovery of Police or Prosecution Storage Devices*

Discovery of law enforcement's computer system by a defendant should *never* be allowed. The factors weighing against allowing such discovery of a civil party's computer system also apply to discovery of law enforcement's computer system.¹⁷⁸ In addition, the same factors that preclude the defense from performing a search of official law enforcement files, notebooks, and lockers of police officers would preclude the defense from inspecting law enforcement's computer systems. Many of law enforcement's files are kept confidential in order to protect ongoing investigations, as well as the privacy and safety of third parties and police officers. Although there are many ways to obtain information from law enforcement's files (such as criminal discovery, civil discovery, subpoena, and the Freedom of Information Law), these methods have never included on-site, personal inspection.

In *People v. Poole*, the court of appeals held that the prosecutor's proffer could be sufficient for the court to find that all *Rosario* material had been disclosed.¹⁷⁹ However, even if the defense articulates a factual basis sufficient to support a finding that that *Rosario* material might exist, the defense is still not allowed to personally inspect law enforcement's or the prosecutor's files.¹⁸⁰ It is the court's task to review the prosecutor's case file *in camera*.¹⁸¹ Furthermore, it is one thing for a court to hold that the prosecutor's case file can be inspected, but quite another for a court to hold that the prosecutor's filing systems and computers can be inspected. Finally, it is yet another leap for a court to hold that such an inspection can be performed on law enforcement's systems.

her at the police precinct." It should be noted that the fashioning of the sanction and adverse inference instruction is within the discretion of the trial court. See *Gibbs*, 615 N.Y.S.2d at 394; *Matarrese*, 584 N.Y.S.2d at 618; *People v. Martinez*, 524 N.E.2d 134, 136 (N.Y. 1988).

178. See, e.g., *Fennell v. First Step Designs, Ltd.*, 83 F.3d 526, 532-33 (1st Cir. 1996) (citing confidential nature of proprietary or privileged information).

179. See *People v. Poole*, 397 N.E.2d 697, 700 (N.Y. 1979).

180. *Id.*; see also *People v. Jackson*, 585 N.E.2d 795, 799 (N.Y. 1995); *People v. Ranghelle*, 503 N.E.2d 1011, 1015 (N.Y. 1986).

181. *Poole*, 397 N.E.2d at 700.

Accordingly, the *Giraldo* court failed to reject the defense's attempt to obtain discovery of the police witness' computer disk with the definitiveness that was warranted.¹⁸² Although *Giraldo* did not request an on-site inspection, he did request to examine the storage medium personally.¹⁸³ In theory, the floppy disk could have contained confidential information, which the defendant could have discovered through forensic analysis. Defense attorneys will seek similar discovery in the future, and will seek to examine entire computer systems instead of mere floppy disks. It is clear that a court would deny an analogous request to examine conventional storage media, e.g., file cabinets, as there is no precedent for allowing a defendant to personally inspect police department or prosecution's files. Courts need to recognize that this type of request is completely unprecedented, as well as recognize the overwhelming harm that could arise if defendants were allowed to conduct discovery of computer storage media. In sum, law enforcement's computer systems should be no more discoverable than the paper-based systems that they are supplementing and replacing.

D. *Proposed Rules Regarding Rosario Material*

The following proposed definitions would remedy New York's current problems with the duplicative equivalent doctrine. The first proposal addresses the fact that New York has not defined what constitutes a writing or recording, and thus should adopt a definition consistent with the Federal Rules of Evidence. The definition provided in Federal Rule of Evidence 1001 is consistent with a finding that computer text is recorded upon keystroke.¹⁸⁴ The other proposed definitions are specifically aimed at reversing the existing doctrine, and would allow common sense and fairness to again be considered in the analysis.

1. *Adopt Federal Rule Evidence 1001 as the Definition of Writing and Recording*

Federal Rule of Evidence 1001 provides, in part, the following:

182. See *People v. Giraldo*, 705 N.Y.S.2d 334, 336 (N.Y. App. Div. 1990).

183. See *id.*

184. See *supra* Part III.A.1. The definition also does not purport to make any distinction between writings and recordings.

(1) Writings and recordings. "Writings" and "recordings" consist of letters, words, or numbers, or their equivalent, set down by handwriting, typewriting, printing, photostating, photographing, magnetic impulse, mechanical or electronic recording, or other form of data compilation.

....

(3) Original. An "original" of a writing or recording is the writing or recording itself or any counterpart intended to have the same effect by a person executing or issuing it If data are stored in a computer or similar device, any printout or other output readable by sight, shown to reflect the data accurately, is an "original."¹⁸⁵

2. *Create a New Definition of the Duplicative Equivalent Doctrine*

Proposed Definition of a Duplicative Equivalent:

- Recorded statements are duplicative equivalents of each other if there are no meaningful differences between the two statements.
- Recorded statements do not have to be identical in order to be considered duplicative equivalents.

(a) "meaningful differences" include:

- Edits made after the document should be considered finalized.
- Edits that change the meaning of the document.
- Substantive edits.

(b) "meaningful differences" do not include:

- Minor edits (an edit made shortly after the initial creation of the document should be presumptively minor).
- Edits made while the document is a work-in-progress.

(c) work-in-progress means:

- A document that has not been finalized.
- A document that is being edited and corrected for accuracy and clarity.
- A document that is being added to, through the addition of new text.

185. FED. R. EVID. 1001.

3. *Proposed Rule to Allow Prosecution Witness' Testimony Regarding Lost or Destroyed Rosario Material*

- The testimony of the witness who created a document or other recorded statement may be considered as to whether prior versions or drafts existed or are exempted from discovery, including as to whether they are duplicative equivalents.
- The witness may be subjected to cross-examination, and the testimony may be given whatever weight deemed appropriate and is not presumptively reliable or unreliable.

E. *The Rosario Rule and Future Police Technology*

Police technology often lags behind the private sector, and version control software is one area in which police should not be expected to emulate private sector technology. Such software is cost-effective for businesses to use because the private sector deals with complicated documents with multiple contributors, and considerable intellectual capital goes into the product. Police departments, in contrast, deal with reports in simple word processing documents that are completed by one person. A police report is a simple factual account, and should not contain any significant creativity. Thus, it is hardly cost-effective for police to use such version control software.¹⁸⁶ Although the purpose of the *Rosario* rule is to allow the defense to test the credibility of a prosecution witness, attempting to track every single change to a document is not the most effective or efficient way to test credibility. In addition, version control software should not become a legal standard because that would unreasonably require all police departments to have the necessary software.

On the other hand, some police departments will become increasingly computerized. Officers and investigators will make more use of laptop or in-car computers, and possibly PDAs. It will also become more common for data, notes, and reports to be entered into a computer from the field and transferred electronically into a centralized database. Moreover, as

186. Cost-effective, in this instance, would reflect a balancing of the financial and administrative costs with the benefit (if any) to the administration of justice.

internal paperwork becomes increasingly electronically based, rather than paper based, agencies will have to ensure that adequate measures are in place to protect the integrity of the stored data.

IV. Conclusion

The New York *Rosario* rule's duplicative equivalent doctrine has serious shortcomings and must be modified. These shortcomings are impossible to ignore and are exacerbated when applied to computer documents. Attempting to conform police procedures and computer technology to the *Rosario* rule is impossible. Rather, proper examination of the problem leads to the conclusion that the duplicative equivalent doctrine is hopelessly rigid. It must be broadened for *all* potential *Rosario* material, regardless of how the material was recorded. A failure to preserve statements that differ only minutely from disclosed statements should not give rise to a finding of error. The prosecution witness should be allowed to testify regarding the contents of lost or destroyed *Rosario* material, and trial court judges must be given the ability to assess the witness' credibility in order to determine if indeed a *Rosario* violation has occurred. From there, the judge can fashion an appropriate remedy, if necessary.

In enacting section 240.75 of the C.P.L., the New York Legislature clearly rejected the rigid rule of *Ranghelle* that had been set forth by the New York Court of Appeals. The New York Court of Appeals is now faced with a clear expression of legislative intent, coupled with the inescapable problem presented by computer documents. The court must retreat from its rigid duplicative equivalent doctrine, and adopt a common-sense approach. If the court of appeals fails to do so, then the New York State Assembly and Senate must act and legislatively overrule the harsh and rigid duplicative equivalent doctrine.